CHAPTER 1: INTRODUCTION

The California High School Exit Examination

California State Senate Bill (SB)-2X, passed in 1999, created the California High School Exit Exam (CAHSEE) and required students to pass this exam to earn a high school diploma. In addition, the legislation created the High School Exit Examination (HSEE) Standards Panel, composed of teachers, principals, school board members, parents, and the general public, which was appointed by the Superintendent and approved by the Board. The HSEE Standards Panel's primary responsibility was to ensure that the exam is aligned with the Board's rigorous content standards for English-language arts (ELA) and mathematics (EC60850b). The Panel also considered and made recommendations on a range of test development and administration issues such as frequency of testing, accommodations for students with disabilities, and determination of passing levels. In addition, the legislation made provisions for an independent evaluation of the CAHSEE. The California Department of Education (CDE) awarded a contract for this evaluation to the Human Resources Research Organization (HumRRO) through a competitive procurement process. As specified in EC 60854, HumRRO's efforts focus on the following analyses:

- data from the field test of items (test questions);
- annual administrations of the CAHSEE; and
- trends in pupil performance and pupil retention, graduation, dropout, and college attendance rates.

As specified in EC 60854, reports from the evaluation include recommendations for improving the quality, fairness, validity, and reliability of the examination.

AB 1609 Study Requirements

California State Assembly Bill (AB) 1609, passed in 2001, required an additional evaluation of the extent to which the CAHSEE can meet standards for development and use for the Class of 2004. AB 1609 added Section 60857 to the California Education Code specifying that the new evaluation must assess "whether the test development process and the implementation of standards-based instruction meet the standards required for a test of this nature." Thus, the new study involved two primary areas of focus:

- the exam (the test development process), and
- instruction (implementation of standards-based instruction).

The first area already was being addressed in the ongoing evaluation. The test development process is being thoroughly reviewed in developing recommendations for improving the quality, fairness, validity, and reliability of the CAHSEE as specified under EC 60854. The additional work required to address the first area was to document the results of this review with respect to specific standards for test development as presented in *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999), the most widely accepted professional standards for a test of this nature.

Work in the second area included an assessment of the current state of California Content Standards-based instruction relative to professional and legal standards for using the CAHSEE as a high school graduation requirement. Both middle-grade instruction, where relevant content standards are first taught, and regular and remedial instruction in high schools were examined.

Specific Research Questions

1. What proportion of students in the Class of 2004 who have *not* yet passed the CAHSEE are in high schools that provide effective remedial programs to help them master the required skills?

2. What proportion of students with disabilities and English learners, who have *not* yet passed the CAHSEE, are in high schools that provide these students with effective remedial instruction in the relevant standards?

3. What proportion of students in the Classes of 2004, 2005, 2006, and subsequent classes attended schools in grades 7 through 9 where instruction in English-language arts and mathematics was not closely aligned to the California Content Standards and was effective in helping all students to master the standards?

4. What proportion of students with disabilities and English learners in these classes attended schools in grades 7 through 9 where instruction was closely aligned to the California Content Standards and was effective in helping these students to master the standards?

5. What are the characteristics of courses providing initial instruction in the content standards that are associated with high levels of mastery for all students and for students with specific disadvantages?
6. What are the characteristics of remedial courses that are associated with high levels of mastery for all students and for students with specific disadvantages?

Overview of Study Procedures

In this section, we provide a brief overview of the procedures used in reviewing both the exam and instruction. The review of instruction included development and administration of a survey of instruction to a representative sample of high schools and middle-grade feeder schools. A middle-grade feeder school was defined as one that sends a large portion of its students to the high school in the sample. Middle-grade feeder school names included middle school, intermediate school, junior high school, and elementary school. Procedures for developing the instruments and selecting the samples are described. Results from the survey were extended and validated through visits to a subset of the sampled schools that included interviews with the principals and selected teachers. Procedures for administering and processing the surveys and for scheduling and conducting the validation interviews are described below.

Review of Test Standards

Standards for test development have been prepared by joint committees of the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME). The most recent edition of these standards was published in 1999 (AERA, APA, NCME, 1999). These standards are widely accepted as the most comprehensive and authoritative statement of standards for educational tests.

The AB 1609 study included a review of the relevant standards for educational and psychological tests. Analyses of the appropriateness and quality of the exams developed to date, which have been a major focus of ongoing evaluation efforts (see Wise et al., 2000a, 2000b, 2001, 2002a, 2002b), are cited to demonstrate the extent to which the CAHSEE meets these standards.

Development of Instruments for the Instruction Survey

Addressing the question of whether all students were provided an adequate opportunity to learn the material covered by the exit exam presented challenges in that California has a very diverse educational system. Further, the exam is designed to cover standards taught in different courses and grades, beginning as early as 6th grade. Prior analyses of instruction in California have started with whether teachers were trained and qualified to teach in their subject area through initial coursework or ongoing professional development. Thus, we anticipated that a more comprehensive view of instructional quality would present new challenges.

Case studies

Given these complexities, we used case study methodology to gather information from five schools, together with their middle-grade feeder schools, regarding where and how the content covered by the CAHSEE was taught and to learn more about the commonalities and differences we were likely to encounter in collecting our survey data. The case study design called for visits to the following five types of schools:

1. a large school that is moderate to moderately low-performing
2. a medium-size school that is moderately high-performing
3. a medium-size school that is moderately low to low-performing
4. a small school that is moderate to moderately low-performing
5. a continuation or county school

Two-person teams visited each of five high schools to document in detail how content covered by the CAHSEE is taught. The teams identified associated middle-grade feeder schools for inclusion in their study, since most of the standards are first covered in grades 6–8. Teams followed interview protocols that were open-ended but intended to provide information that would allow for development of more closed-ended questions for the surveys. The following broad topics were covered:

- Site Characteristics (selection designation, geographic designation, size, SES, community setting/atmosphere, student population, challenging instructional groups, student achievement characteristics)
- Curriculum Content (the extent to which students have been exposed to the specific subjects and topics that are essential to succeeding on the CAHSEE; implementation levels of standards-based instruction in English-language arts [ELA] and mathematics; alignment efforts; coordination with middle-grade feeder schools; systematic review/reinforce of earlier concepts)
- Instructional Strategies (the extent to which students have been exposed to the kinds of teaching and instructional experiences that would prepare them to succeed on the CAHSEE)
- Instructional Resources (the extent to which there are appropriate resources to prepare students for success on the CAHSEE [e.g., teacher preparation—degree, certification, experience, participation in relevant in-service training, attitudes toward the subject area and the test; availability of material resources—recent textbooks, supplementary materials, tools/manipulatives/technology])
- Challenging Student Groups (special needs—accommodation and modification, English learners (EL), African American/other race, low socioeconomic status (SES))
- Other (effects on graduation rate; information to the State Board of Education (SBE))

Surveys

The results of the case studies were used to document (a) the range of courses in which the content standards assessed by the CAHSEE are covered and (b) different indicators of the type and quality of instruction in these courses. Separate high school and middle-grade feeder school principal surveys and high school teacher and middle-grade feeder school teacher surveys were developed in scannable format. (See Appendix A in Volume 2 for copies of the principal and teacher surveys.)

The high school and middle-grade feeder school principal surveys included four types of listings:

6. "Common" primary or initial courses (primarily from California Basic Educational Data System [CBEDS]) in ELA plus space for additional ELA courses that the school might offer
7. "Common" primary or initial courses (primarily from CBEDS) in mathematics plus space for additional math courses that the school might offer
8. State-adopted ELA programs for middle school basic and intervention programs plus space for additional remediation ELA courses or programs that the school might offer
9. State-adopted mathematics program for middle school basic and intervention programs plus space for additional remediation math courses or programs that the school might offer

The principals also were asked to complete closed-ended questions about coverage of the California Content Standards; teacher professional development related to the California

Content Standards; tracking mastery of the content standards; articulation; and for high school principals, information about proportion of students not passing the CAHSEE.

For each of the four listings of subject area and type of course—initial or remedial—the principals were asked to identify up to 10 courses from each provided list and/or by entering their additions. Then, for each course listed on the principal survey, one teacher most knowledgeable about that course was to receive a teacher survey to complete.

The teacher survey had a place for the title of the identified course, and the instructions asked the teacher to respond only relative to that course. Questions related to a basic description of the course, grade level(s) of enrolled students, total enrollment, percentages of subpopulations enrolled in the course, textbook and supplementary materials used, educational backgrounds and years of experience of the teachers of the course, teacher credentials, and teachers' experience in working with subpopulations who may be challenged to meet the CAHSEE standards.

Selection of Survey and Validation Samples

A total of 600 high schools were selected for inclusion in the instruction survey. These schools formed a representative sample of all California high schools. We controlled for the following characteristics (in order of importance): district, charter status, and mean reading scores. The selection process began by identifying a target number of schools for each district (1, 2, 3 or Los Angeles) on the basis of the total 10^{th} grade enrollment in 2002. Within each district, schools were ordered by charter versus regular public school and then by their mean 10^{th} grade Reading scale score from the 2002 Standardized Testing and Reporting (STAR) assessment. Schools were selected systematically (every nth) from this list with probability proportional to their 10^{th} grade enrollment. Characteristics of the schools in the sample and those that ended up participating in the survey are described in Chapter 3.

The validation sample was a subset of the survey sample. The characteristics controlled for, in order of importance, were district (except that most districts had only one or two schools) and mean Reading scores. To select the sample, all of the schools selected for the survey were ordered by the district mean from the 2002 10^{th} Grade STAR Reading Assessment (this grouped all schools from a given district together) and then by the school's own mean. Schools were selected systematically from this list with probability proportional to the original sampling weight for the school (so that the final sample would have equal weights).

Administration and Receipt Processing

Sending out the surveys and following up with non-responders was a multi-stage process. First, all California superintendents of school districts with grade 10 were faxed a form listing the high schools in their district that were included in the survey sample. The superintendent's office was asked to provide the principal's name and address, and to identify a middle-grade feeder school to this high school, with accompanying principal contact information. When the middle-grade feeder school was in another district, the superintendent's office was asked to forward the background information to the appropriate

person in the middle-grade feeder school district. Each superintendent's office was instructed to fax the completed form to HumRRO.

Districts that failed to respond to this fax request were phoned a few weeks later. In the phone call, they were reminded of the request, and another form was faxed, if requested. Districts that declined to participate were flagged in a sample database to ensure they were not contacted again.

As the fax-back forms arrived, the sample database was updated with the contact information for the high school and middle-grade feeder schools. Each school was assigned an identification number between 1 and 600. Beginning January 24, 2003, HumRRO staff shipped packets containing a cover letter, one principal survey, 40 course surveys with instruction letters, and a Federal Express package to return the completed surveys. For tracking purposes, the school identification number was written on the surveys prior to shipping. The database was updated to indicate the date the packet was sent to each school. The cover letter asked the principal to return the completed surveys within two weeks from the ship date. Each day, new fax-back form information was added to the database and new packets were shipped.

When HumRRO received completed surveys, we updated a survey receipt log file to indicate the number of principal and teacher surveys received from that school ID number. We then forwarded surveys for scanning and data entry of open-ended (i.e., handwritten) responses.

Periodically, we inspected the survey receipt log file to identify schools that had not returned surveys shipped to them at least two weeks prior. We mailed a reminder letter to these schools. Surveys were accepted through April 11, 2003. Surveys received after this date could not be included in analyses in time for the final report.

Schools and districts were provided HumRRO contact information in both the fax-back forms and the school cover letters. Corrections to school information, school declinations, and requests for additional time to complete the surveys were logged in the sample database.

Scheduling the Validation Interviews

The validation sample was drawn from the larger survey sample. All initial contact with the districts was made in conjunction with the survey sample to update the database information on the high schools and obtain information on middle-grade feeder schools. For the validation sample, researchers worked from the updated database as much as possible.

We decided that it was important to visit some middle-grade feeder schools, so as the schedule was being completed we attempted to arrange middle-grade feeder school visits for every third or fourth high school. The following list outlines the procedure we used to schedule the site visits:

- Called districts to collect contact information from 53 districts that had not returned fax-back sheets
    - Obtained principal's name, current telephone numbers and address

- Identified main middle-grade feeder school and collected contact information for middle-grade feeder
- Seven districts declined to participate

- Clustered districts for visits
  - Typically within 1 hour of central site
  - Seven clusters in Southern California, 4 clusters in Central/Northern California

- Assigned teams by date to clusters
  - Eight team leaders: experienced HumRRO staff members
  - Fifteen "team weeks"

- Contacted high school principals to schedule specific dates
  - Faxed information sheet and schedule worksheet
  - Called principal
  - Worked around conflicts and holidays
  - School staff arranged times of interviews

- Filled gaps with middle-grade feeder schools
  - Same process but fewer options for date, tried to get adjacent days
  - In three cases, scheduled middle-grade feeder school same day as high school
  - Avoided middle-grade feeder schools outside the district

- Conducted telephone interviews with:
  - Two schools because East Coast weather delayed travel
  - One school because of remote location and difficulty fitting into regular schedule

Seven districts declined to participate in any portion of the study. Four districts did not respond to requests for the site visits. The selected schools in two districts—special education and a charter—were not considered viable choices for site visits by the district contacts. The final sample included 62 schools as described in the Table 1.1 below.

Table 1.1. Final Validation School Sample

	South	North	Total
High Schools	31	10	41
Middle-Grade Feeder Schools	13	4	17
Other (charter, continuation or alternative, juvenile authority)	2	2	4
Total	46	16	62

Organization of This Report

This report covers activities completed during the additional evaluation carried out under AB 1609 to examine the extent to which the CAHSEE can meet standards for development and use for the Class of 2004. These activities focused on a review of the extent to which the CAHSEE development meets the accepted standards and on the level of implementation of standards-based instruction.

- Chapter 2 presents a listing of standards for test development along with a discussion of the extent to which the CAHSEE development meets these standards.
- Chapter 3 describes findings of the impact of the CAHSEE requirement on instruction at both the high school and middle school levels.
- Chapter 4 discusses the extent to which instruction has been adequate to prepare the Class of 2004 to pass the CAHSEE.
- Chapter 5 discusses the extent to which subsequent classes may be better prepared to pass the CAHSEE.

The report concludes with a summary of findings and recommendations for consideration by the State Board of Education (SBE) for its consideration whether to continue the CAHSEE requirement for the Class of 2004.